



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/620,293

07/15/2003

Anthony James Yeates

M61.12-0487

7698

27366

7590

02/11/2009

WESTMAN CHAMPLIN (MICROSOFT CORPORATION)

SUITE 1400

900 SECOND AVENUE SOUTH

MINNEAPOLIS, MN 55402

EXAMINER

SWARTZ, JAMIE H

ART UNIT

PAPER NUMBER

3694

MAIL DATE

DELIVERY MODE

02/11/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/620,293	<b>Applicant(s)</b> YEATES ET AL.	
	<b>Examiner</b> JAMIE H. SWARTZ	<b>Art Unit</b> 3694	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18, 20-52 and 58-67 is/are pending in the application.
- 4a) Of the above claim(s) 63-67 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18, 20-52, and 58-62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status***

1. This action is in response to the amendment filed on November 17, 2008. Claims 1-52, 58-62, and 63-67 are pending. Claims 1-4, 6-7, 22-23, 33, 36, and 62 are amended. Claims 63-67 are new.

### ***Election/Restrictions***

2. Newly submitted claims 63-67 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claims 63-67 are drawn to merchant invariant data that transmits a first authorization request. A point of sale device that transmits a second authorization request. A payment processing gateway selectively transmits a third authorization request and a fourth authorization request to a financial institution. None of the financial authorizations involved in claims 63-67 involve financial transaction authorization. Nowhere is a transaction involved in claims 63-67. Nor is merchant invariant data ever associated specifically with financial transaction authorizations. Thus the original invention and the new claims are sub combinations usable together.

3. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 63-67 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly amended claim includes details regarding a transaction header. There are no details of a "transaction header field" in the specification. There are only details of a supplemental header. Thus this is new matter.
6. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
7. Regarding claim 2, the phrase "transaction header field" renders the claim indefinite because it is unclear what the applicant means when describing a transaction header.

***Response to Arguments***

Art Unit: 3694

8. Applicant's arguments with respect to claims 1-18, 20-52 and 58-62 have been considered but are moot in view of the new ground(s) of rejection.

9. Applicant's arguments filed November 17, 2008 have been fully considered but they are not persuasive.

10. Regarding claim 1: Applicant argues that Willard does not disclose that the processing server makes any comparison or any rejection on page. 17 of applicant's arguments. The examiner respectfully disagrees. As can be further seen in the Willard reference in at least (¶ 44) the transactions are checked (compared) for fraud and errors in a transaction. A variety of security information is checked within the error and fraud checks. If there is an error the transaction is blocked (rejected). The examiner also disagrees with the assertion that the prior art teaches away as can be seen in at least (¶ 44) Willard teaches comparing and rejecting transactions. The applicant argues that Willard does not teach an authorization request to a financial institution coupled to a public network. The examiner respectfully disagrees. As can be seen in at least (¶ 68) Willard teaches authorization and authentication of transactions. Willard teaches doing all the transaction authorizations over a network as well as the Internet in at least (¶ 68, 57, 75).

11. Regarding claim 2: the applicant argues that Willard does not include any details about a transaction header field with a response data field. The examiner respectfully

Art Unit: 3694

disagrees as can be seen in at least (¶¶ 43-44). Willard teaches a transaction code when running the transaction. And later if the data does not correctly match up the transaction is blocked (rejected).

12. Regarding claim 17: the applicant argues that Willard does not include merchant or store/location invariant data. The examiner respectfully disagrees. As can be see at least in Willard (¶¶ 43) the merchant enters a merchant PIN and the device has a POS identification number both associated with the merchant that needs to occur before the transaction is made. Further down in the application the merchant sends a debit request which includes the merchants information (¶¶ 59). The examiner would also like to assert that invariant data associated with a transaction and a merchant can be the merchant's name.

13. Regarding claim 22: the applicant argues information that is newly amended into the claims. The argument is moot based on a new grounds of rejection.

14. Regarding claim 33: the applicant argues that Willard doe not show indexing. The examiner respectfully disagrees. Though Willard does not specifically teach a cache Official Notice (now admitted prior) was taken for the known background existence of cache. Based on the specification the index uses data from the header for indexing. Based on the assertion of the indexing involved in the data associated with the header involved in the processing it is clearly seen the Willard teaches indexing involved in the

Art Unit: 3694

data stored in memory which can be seen in at least (¶ 49) which includes the listing off of data amounts and other information associated with said transaction.

15. Regarding claim 46: the applicant argues that Willard does not disclose transmitting a message to merchants and a gateway processor. The examiner respectfully disagrees as can be seen in at least (¶ 44, 57-58). The processor communicates with the merchant server including asking for load request information.

16. Regarding claim 58: the applicant argues that Willard does not teach disclosing an acknowledgement sent by the financial network interface in response to a load authorization. And goes on to say that the prior art teaches away from the claimed invention. The examiner respectfully disagrees. The Willard prior art teaches multiple communications, multiple types of communication as well as multiple acknowledgements see at least (¶ 40-49, 99-100, 116). Messages and acknowledgements are sent separately from the financial institution and the merchant. And because the acknowledgement message as claimed by claim 58 does not require any Although specific embodiments have been illustrated and described in the prior art invention, those of ordinary skill in the art know that a wide variety of alternate and/or equivalent implementations may be substituted for the specific embodiments shown and described without departing from the scope of the present invention.

Art Unit: 3694

17. Regarding claim 62: the applicant argues information that is newly amended into the claims. The argument is moot based on a new grounds of rejection. The applicant states that support for the amended claim can be found on page 28 of the specification. However, the specification only has 18 pages. Thus there is no page 28.

***Claim Rejections - 35 USC § 103***

18. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claim 1-2, 6, 10-11, 17, 18, 20, 21, 25, 27, 31, 58, 61 rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view of Narin (US 6966034 B2) in further view of Epstein (US 20030004828 A1).

21. Regarding claim 1, Willard teaches a payment processing gateway server for processing financial transactions (¶ 37). Willard teaches a network interface configured to couple to a network and receive first financial transaction authorization requests, the first financial transaction authorization requests received from merchants and include transaction specific data, merchant and or store related data which is related to a merchant generating the authorization request (¶ 37). Willard teaches a gateway



Art Unit: 3694

processor configured to process first financial transaction authorization requests received through the network interface (§ 37, 43). Willard teaches a financial network interface configured to couple to at least one financial network and transmit second financial transaction authorization requests to a financial institution coupled to the at least one financial network based upon first financial transaction authorization requests, the financial network interface further configured to receive first financial transaction authorization results from the financial institution (§ 37, 43, 49). Willard teaches the network interface further configured to send second financial transaction authorization results to merchants in response to the first financial transaction authorization results (§ 37, 43, 49-50). Willard teaches including a contract identification field which identifies a contract with a payment provider (§ 37, 43, 49-50). Willard teaches a supplemental header including a contract identification field which identifies a contract with a payment provider (§ 37, 43, 58-59). Willard teaches a comparison of data in the contract identification field to the listing of valid contract identifications, wherein the gateway processor is further configured to reject the first financial transaction authorization requests based on a determination that the data in the contract identification field does not match a valid contract identification in the listing of valid contract identifications (§ 37, 43, 44). Willard teaches a gateway memory that includes a listing of valid contract identification (§ 37, 43, 49, 55, 114, 118). Willard does not specifically teach a supplemental header. However, Narin teaches a supplemental header (col. 4, line 4 – col. 6, line 60). Willard teaches loading money by transferring data in real-time through existing technology over a network. Narin teaches servicing requests for data

Art Unit: 3694

transmitted across such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include a supplemental header. A supplemental header at the time of the invention was a well known part of a message format. A supplemental header can be used to store any kind of information (including financial data) and the information that controls the process would operate the same whether in the supplemental header or in the message body. The information is not changed or modified based on being in the supplemental header. A supplemental header is a convenient place to store the information to control a process, as it is a place that is easier to access for a wider variety of software packages. Willard teaches a network interface but does not specifically teach a public network interface. However, Epstein teaches a public network interface (¶ 12-25). Willard teaches loading money by transferring data in real-time through existing technology over a network. Epstein teaches network communications and database maintenance including a system to facilitate Internet commerce. Both Willard and Epstein use network communications for the facilitation of Internet commerce. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a public network interface. The current invention uses a public network as a mode for request of a transaction and then a financial network is used to process the request. Willard uses an in person mode for the request of a transaction and then uses a financial network to process the request. It would have been obvious to one of ordinary skill in the art at the time of the invention to make use of

Art Unit: 3694

a public network to automate a previously manual activity. The use of technology is efficient and saves time and money.

22. Regarding claim 2, Willard teaches wherein configured to reject comprises the gateway processor configured to send a transaction response that includes a transaction header field and a response data field, wherein the transaction header field identifies a particular transaction (§§ 37, 39, 43-44, 49-50).

23. Regarding claim 6, Willard teaches wherein the gateway memory includes log data related to data carried in the contract identification field of information holder received from a plurality of first financial transaction authorization requests (§§ 37-44). Willard does not specifically teach a supplemental header. However, Narin teaches a supplemental header (col. 4, line 4 – col. 6, line 60). Willard teaches loading money by transferring data in real-time through existing technology over a network. Narin teaches servicing requests for data transmitted across such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include a supplemental header. A supplemental header at the time of the invention was a well known part of a message format. A supplemental header can be used to store any kind of information and the information that controls the process would operate the same whether in the supplemental header or in the message body. The information is not changed or modified based on being in the supplemental header. A supplemental

Art Unit: 3694

header is a convenient place to store the information to control a process, as it is a place that is easier to access for a wider variety of software packages.

24. Regarding claim 10, Willard teaches wherein the gateway processor maintains an open socket connection with a financial institution throughout the financial network interface during processing of a financial transaction authorization request (§ 49).

Willard discloses an open Internet connection with a financial institution.

25. Regarding claim 11, Willard teaches wherein the information holder includes a payment type field (§ 43, 49-56). Willard does not specifically teach a supplemental header. However, Narin teaches a supplemental header (col. 4, line 4 – col. 6, line 60). Willard teaches loading money by transferring data in real-time through existing technology over a network. Narin teaches servicing requests for data transmitted across such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include a supplemental header. A supplemental header at the time of the invention was a well known part of a message format. A supplemental header can be used to store any kind of information and the information that controls the process would operate the same whether in the supplemental header or in the message body. The information is not changed or modified based on being in the supplemental header. A supplemental header is a

Art Unit: 3694

convenient place to store the information to control a process, as it is a place that is easier to access for a wider variety of software packages.

26. Regarding claim 17, Willard teaches a payment processing gateway server for processing financial transactions (§ 37). Willard teaches a network interface configured to couple to a network and receive first financial authorization requests, financial transaction the first authorization requests received from merchants and include transaction specific data, merchant and/or related data which is related to a merchant generating the authorization request (§ 37). Willard teaches a gateway processor configured to process first financial transaction authorization requests received through the network interface (§ 37, 43). Willard teaches a gateway memory that includes a cache of merchant or store/location invariant data (§ 37, 43, 59). Willard teaches a gateway processor configured to retrieve the merchant or store/location invariant data based upon the cache-key field and configured to process first financial transaction authorization requests received through the public network interface based upon supplemental header (§ 37, 43, 59). Willard teaches a financial network interface configured to couple to at least one financial network and transmit second financial transaction authorization requests to a financial institution coupled to the at least one financial network based upon first financial transaction authorization requests, the financial network interface further configured to receive first financial transaction authorization results from the financial institution (§ 37, 43, 49). Willard teaches the network interface further configured to send second financial transaction authorization

Art Unit: 3694

results to merchants in response to the first financial transaction authorization results (§§ 37, 43, 49-50). Willard teaches a payment type identification field which identifies a financial network coupled to the financial network interface for processing the first financial transaction authorization request (§§ 37, 43, 49-50). Willard does not specifically teach a supplemental header. However, Narin teaches a supplemental header (col. 4, line 4 – col. 6, line 60). Willard teaches loading money by transferring data in real-time through existing technology over a network. Narin teaches servicing requests for data transmitted across such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include a supplemental header. A supplemental header at the time of the invention was a well known part of a message format. A supplemental header can be used to store any kind of information (including financial data) and the information that controls the process would operate the same whether in the supplemental header or in the message body. The information is not changed or modified based on being in the supplemental header. A supplemental header is a convenient place to store the information to control a process, as it is a place that is easier to access for a wider variety of software packages. Willard teaches a network interface but does not specifically teach a public network interface. However, Epstein teaches a public network interface (§§ 12-25). Willard teaches loading money by transferring data in real-time through existing technology over a network. Epstein teaches network communications and database

Art Unit: 3694

maintenance including a system to facilitate Internet commerce. Both Willard and Epstein use network communications for the facilitation of Internet commerce. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a public network interface. The current invention uses a public network as a mode for request of a transaction and then a financial network is used to process the request. Willard uses an in person mode for the request of a transaction and then uses a financial network to process the request. It would have been obvious to one of ordinary skill in the art at the time of the invention to make use of a public network to automate a previously manual activity. The use of technology is efficient and saves time and money.

27. Regarding claim 18, Willard teaches wherein the payment type identification field identifies a transaction type, payment network and/or protocol (§ 37-43)

28. Regarding claim 20, Willard teaches wherein the payment type identification field describes a protocol format of the transaction specific data (§ 38).

29. Regarding claim 21, Willard teaches wherein the information holder further includes a contract identification field which identifies a contract with a payment provider (§ 37-39). Willard does not specifically teach a supplemental header. However, Narin teaches a supplemental header (col. 4, line 4 – col. 6, line 60). Willard teaches loading money by transferring data in real-time through existing technology over a network.

Art Unit: 3694

Narin teaches servicing requests for data transmitted across such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include a supplemental header. A supplemental header at the time of the invention was a well known part of a message format. A supplemental header can be used to store any kind of information and the information that controls the process would operate the same whether in the supplemental header or in the message body. The information is not changed or modified based on being in the supplemental header. A supplemental header is a convenient place to store the information to control a process, as it is a place that is easier to access for a wider variety of software packages.

30. Regarding claim 25, Willard teaches wherein the gateway processor maintains an open socket connection with a financial institution through the financial network interface during processing of a financial transaction authorization request (§ 49).

Willard discloses an open Internet connection with a financial institution.

31. Regarding claim 27, Willard teaches wherein the gateway processor maintains an open socket connection with a merchant through the public network during processing of a financial transaction authorization request (§ 49). Willard discloses an open Internet connection with a financial institution.



Art Unit: 3694

32. Regarding claim 58, Willard teaches a payment processing gateway server for processing debit type financial transactions (§ 37). Willard teaches a network interface configured to couple to a network and receive first financial transaction authorization requests, the first financial transaction authorization requests received from merchants and include transaction specific data, and merchant and/or store related data which is related to a merchant generating the authorization request (§ 37-56). Willard teaches a gateway processor configured to process first financial transaction authorization requests received through the network interface (§ 38-39, 55-56). Willard teaches a financial network interface configured to couple to at least one financial network and transmit second financial transaction authorization requests to a financial institution coupled to the at least one financial network based upon first financial transaction authorization requests, the financial network interface further configured to receive first financial transaction authorization results from the financial institution (§ 38-39, 51, 55-56). Willard teaches a network interface further configured to send second financial transaction authorization results to merchants in response financial transaction results (§ 43-50). Willard teaches the first authorization financial network interface further configured to send an acknowledgement to the financial institution independently of receipt of an acknowledgement from the merchant in response to the second financial authorization results (§ 43-50). Willard does not specifically teach a supplemental header. However, Narin teaches a supplemental header (col. 4, line 4 – col. 6, line 60). Willard teaches loading money by transferring data in real-time through existing technology over a network. Narin teaches servicing requests for data transmitted across

Art Unit: 3694

such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include a supplemental header. A supplemental header at the time of the invention was a well known part of a message format. A supplemental header can be used to store any kind of information and the information that controls the process would operate the same whether in the supplemental header or in the message body. The information is not changed or modified based on being in the supplemental header. A supplemental header is a convenient place to store the information to control a process, as it is a place that is easier to access for a wider variety of software packages. Willard teaches a network interface but does not specifically teach a public network interface. However, Epstein teaches a public network interface (§ 12-25). Willard teaches loading money by transferring data in real-time through existing technology over a network. Epstein teaches network communications and database maintenance including a system to facilitate Internet commerce. Both Willard and Epstein use network communications for the facilitation of Internet commerce. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a public network interface. The current invention uses a public network as a mode for request of a transaction and then a financial network is used to process the request. Willard uses an in person mode for the request of a transaction and then uses a financial network to process the request. It would have been obvious to one of ordinary skill in the art at the

Art Unit: 3694

time of the invention to make use of a public network to automate a previously manual activity. The use of technology is efficient and saves time and money.

33. Regarding claim 61, Willard teaches wherein the gateway processing sends an acknowledgement to the financial institution (§ 43-50).

34. Claims 3-4, 15, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view of Narin (US 6966034 B2), in further view of Talati et al. (US 5903878 A) in further view of Epstein (US 20030004828 A1).

35. Regarding claim 3, Willard teaches a public network interface and a gateway processor for financial transactions. However, Willard does not specifically teach a NACK message. However, Talati teaches wherein the gateway server sends a NACK message to a merchant through the public network interface if the data in the contract identification field does not match the valid contract identifications contained in memory (col. 9, lines 10-67). Willard teaches loading money by transferring data in real-time through existing technology over a network. Narin teaches servicing requests for data transmitted across such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a NACK message. Sending a NACK is for the receiving station to not acknowledge

Art Unit: 3694

that it has received packets. By not receiving an ACK, the sender could assume that the receiver is overflowing or the network is congested and slow down its transmission.

TCP receivers use ACK to inform a sending host that packets have arrived. If the ACK is not sent, the sender assumes packets have been lost. NACK is used to indicate that a packet has been corrupted and to resend it. A checksum error may indicate a corrupted packet. A NACK is different than a normal acknowledgment in that it indicates that a packet was received in a corrupted state rather than not received at all. When sending information over a network it is important to know whether or not the data was received. If the data is not received it is important to be alerted that it needs to be resent.

36. Regarding claim 4, Willard teaches a public network interface and a gateway processor for financial transactions. However, Willard does not specifically teach an ACK message. However, Talati teaches wherein the gateway server sends an ACK message to a merchant through the public network interface if the data in the contract identification field matches a valid contract identification contained in memory (col. 9, lines 10-67). Willard teaches loading money by transferring data in real-time through existing technology over a network. Narin teaches servicing requests for data transmitted across such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include an ACK message. An ACK is a confirmation of receipt. When data is transmitted between two

Art Unit: 3694

systems, the recipient can acknowledge that it received the data. When sending information over a network it is important to know whether or not the data was received.

37. Regarding claims 15 and 31, Willard teaches a public network interface and a gateway processor for financial transactions. However, Willard does not specifically teach an ACK message. However, Talati teaches wherein an ACK transmission through the public network interface by the gateway server to a merchant does not precede a transmission of an authorization result (col. 9, lines 10-67). Willard teaches loading money by transferring data in real-time through existing technology over a network. Narin teaches servicing requests for data transmitted across such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include an ACK message. An ACK is a confirmation of receipt. When data is transmitted between two systems, the recipient can acknowledge that it received the data. When sending information over a network it is important to know whether or not the data was received.

38. Claims 5, 7-9, 23, 34, 36, 38, 41, 46-48, 53-55, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view of Narin (US 6966034 B2) in further view of Epstein (US 20030004828 A1) in further view of Official Notice (now admitted prior art).

Art Unit: 3694

39. Regarding claim 5, Willard teaches contract identification (§§ 37-39). Willard does not specifically teach wherein the field comprises two bytes of 8 data bits each. Official Notice (now admitted prior art) is taken that a data format of two bytes of 8 data bits each was well known at the time of the invention. 1 byte having 8 bits is ubiquitous. That specific size is convenient to many architectures.

40. Regarding claim 7, Willard teaches wherein the gateway memory includes a memory of merchant or store/location invariant data and wherein the financial transaction authorization requests include a memory-key field which identifies data in the memory (§§ 51). Official Notice (now admitted prior art) is taken that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

41. Regarding claim 8, Willard teaches wherein financial transaction authorization requests include a data field and wherein the gateway processor populates the storage area contained in the memory with data received in the data field (§§ 39). Official Notice (now admitted prior art) is taken that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in

Art Unit: 3694

permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

42. Regarding claim 9, Willard teaches wherein the memory-key comprises a 128 bit data field (§ 43, 51). Willard discloses merchant identifiers. Official Notice (now admitted prior art) that the use of cache memory is old and well-known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

43. Regarding claim 23, Willard teaches wherein financial transaction authorization requests include a data field and wherein the gateway processor populates the storage area contained in the memory with data received in the data field (§ 37-41). Official Notice (now admitted prior art) is taken that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

44. Regarding claim 34, Willard teaches wherein the memory key comprises 128 bits of data (§§ 37, 51). Official Notice (now admitted prior art) is taken that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

45. Regarding claim 36, Willard teaches wherein the memory key comprises data indicative of a merchant (§§ 43-47). Official Notice (now admitted prior art) is taken that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

46. Regarding claim 38, Willard teaches wherein the gateway processor provides a web service on the public network interface (§§ 37-45).

47. Regarding claim 41, Willard teaches a public network interface, a gateway processor, a financial network, and a memory. Official Notice (now admitted prior art) is



Art Unit: 3694

taken that storing duplicate data is old and well known. It is also old and well known that this data would be referred to as a backup. Official Notice (now admitted prior art) that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

48. Regarding claim 46, Willard teaches wherein the gateway processor transmits a request message to merchants through the public network interface which requests a transmission of memory-able data for populating the memory (§§ 43-50). Official Notice (now admitted prior art) that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

49. Regarding claim 47, Willard teaches wherein the financial transaction authorization request includes an information holder containing a contract identification field (§§ 37, 43, 49-50). Willard does not specifically teach a supplemental header. However, Narin teaches a supplemental header (col. 4, line 4 – col. 6, line 60). Willard

Art Unit: 3694

teaches loading money by transferring data in real-time through existing technology over a network. Narin teaches servicing requests for data transmitted across such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include a supplemental header. A supplemental header at the time of the invention was a well known part of a message format. A supplemental header can be used to store any kind of information and the information that controls the process would operate the same whether in the supplemental header or in the message body. The information is not changed or modified based on being in the supplemental header. A supplemental header is a convenient place to store the information to control a process, as it is a place that is easier to access for a wider variety of software packages.

50. Regarding claim 48, Willard teaches wherein the financial transaction authorization request includes an information holder containing a payment type identification field (¶¶ 37, 43, 49-50, 57). Willard does not specifically teach a supplemental header. However, Narin teaches a supplemental header (col. 4, line 4 – col. 6, line 60). Willard teaches loading money by transferring data in real-time through existing technology over a network. Narin teaches servicing requests for data transmitted across such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include a

Art Unit: 3694

supplemental header. A supplemental header at the time of the invention was a well known part of a message format. A supplemental header can be used to store any kind of information and the information that controls the process would operate the same whether in the supplemental header or in the message body. The information is not changed or modified based on being in the supplemental header. A supplemental header is a convenient place to store the information to control a process, as it is a place that is easier to access for a wider variety of software packages.

51. Regarding claim 53, Willard teaches a financial transaction authorization request (§§ 50-56). Willard teaches a memory-able data field configured to contain transaction invariant data (§§ 51). Willard teaches a memory key field configured to contain an index key to a database list or hash-table (§§ 49, 90). Willard teaches a transaction specific data field configured to contain data related to a financial transaction (§§ 37, 43, 49-50). Official Notice (now admitted prior art) is taken that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources. Willard does not specifically teach a supplemental header. However, Narin teaches a supplemental header (col. 4, line 4 – col. 6, line 60). Willard teaches loading money by transferring data in real-time through existing technology over a network. Narin teaches servicing requests for data

Art Unit: 3694

transmitted across such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include a supplemental header. A supplemental header at the time of the invention was a well known part of a message format. A supplemental header can be used to store any kind of information and the information that controls the process would operate the same whether in the supplemental header or in the message body. The information is not changed or modified based on being in the supplemental header. A supplemental header is a convenient place to store the information to control a process, as it is a place that is easier to access for a wider variety of software packages.

52. Regarding claim 54, Willard teaches wherein the information holder comprises a contract identification field (§§ 37, 43, 49-50). Willard does not specifically teach a supplemental header. However, Narin teaches a supplemental header (col. 4, line 4 – col. 6, line 60). Willard teaches loading money by transferring data in real-time through existing technology over a network. Narin teaches servicing requests for data transmitted across such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include a supplemental header. A supplemental header at the time of the invention was a well known part of a message format. A supplemental header can be used to store any kind of information and the information that controls the process would operate the same

Art Unit: 3694

whether in the supplemental header or in the message body. The information is not changed or modified based on being in the supplemental header. A supplemental header is a convenient place to store the information to control a process, as it is a place that is easier to access for a wider variety of software packages.

53. Regarding claim 55, Willard teaches wherein the information holder comprises a payment type identification field (§§ 37, 43, 49-50, 57). Willard does not specifically teach a supplemental header. However, Narin teaches a supplemental header (col. 4, line 4 – col. 6, line 60). Willard teaches loading money by transferring data in real-time through existing technology over a network. Narin teaches servicing requests for data transmitted across such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include a supplemental header. A supplemental header at the time of the invention was a well known part of a message format. A supplemental header can be used to store any kind of information and the information that controls the process would operate the same whether in the supplemental header or in the message body. The information is not changed or modified based on being in the supplemental header. A supplemental header is a convenient place to store the information to control a process, as it is a place that is easier to access for a wider variety of software packages.

Art Unit: 3694

54. Regarding claim 57, Willard teaches wherein the memory key field comprises 128 bits (§ 51). Official Notice (now admitted prior art) is taken that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

55. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view of Narin (US 6966034 B2) in view of Official Notice (now admitted prior art) in further view of Steele et al. (US 7016875 B1).

56. Regarding claim 35, Willard teaches a memory (§ 39). Official Notice (now admitted prior art) is taken that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources. A cache system is old and well known in any transaction system. The cache is a copy of something that has been recently used that is kept based on the chance that it would be faster to use it again in the cache then to retrieve it again over a network. Willard does not specifically teach a GUID. However, Steele

Art Unit: 3694

teaches a GUID (col. 10, lines 7-56). Willard teaches loading money by transferring data in real-time through existing technology over a network. Steele teaches the storage, management, and delivery of user or consumer data on or over a network. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include a GUID. A GUID is a 128-bit integer (16 bytes) that can be used across all computers and networks wherever a unique identifier is required. Such an identifier has a very low probability of being duplicated. The term GUID is used specifically by the Microsoft Corporation for a number that its programming generates to create a unique identity for an entity such as a Word document. GUIDs are widely used in Microsoft products to identify interfaces, replica sets, records, and other objects. It helps to differentiate between different cache keys. Identifiers allow you to find the correct key quickly as oppose to trial and error. Most systems will only allow a few tries at the key before the system will shut down to protect against a brute force attack.

57. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view of Narin (US 6966034 B2) in further view of Epstein (US 20030004828 A1) in further view of Official Notice (now admitted prior art) in further view of Stevens (1994) in further view of Official Notice.

58. Regarding claim 36, Willard teaches wherein the memory key comprises data indicative of a merchant (§ 43-47). Official Notice (now admitted prior art) is taken that the use of cache memory is old and well known as it provides the benefit of more

Art Unit: 3694

efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources. Willard doesn't specifically state the bytes used. However, Stevens teaches the storage of data involves different byte sizes including 12 and 4 bytes. There are various methods and sizes used in rearranging the different sizes associated with storage for labels and characters. It is well known that the byte sizes allow for the system to run quicker or allow for the user to select how much data would be needed for identifying or storing data. A byte is component in the machine data hierarchy larger than a bit and usually smaller than a word; now nearly always eight bits and the smallest addressable unit of storage. A byte typically holds one character. Thus the data being stored by the applicant is either 4 characters for store data and 12 characters for merchant data.

59. Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view of Narin (US 6966034 B2) in further view of Epstein (US 20030004828 A1) in further view of Official Notice (now admitted prior art) in further view of Langhans (US 5621201 A) in further view of Official Notice.

60. Regarding claim 22, Willard teaches a memory containing a memory of merchant or store/location invariant data and wherein the financial transaction authorization requests include a memory-key field which identifies data in the memory (¶ 37, 51).



Art Unit: 3694

Official Notice (now admitted prior art) is taken that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources. Willard does not specifically teach wherein the merchant or store/location invariant data includes a merchant name, a location, a merchant category code, and an acquirer bin. Official Notice is taken that it was old and well known in the art to have various data on file for merchants. To further point this out Langhans teaches wherein the merchant or store/location invariant data includes a merchant name, a location, a merchant category code, and an acquirer bin see at least col. 15, line 4- col. 16, line 54. It would have been obvious to one of ordinary skill in the art at the time of the invention to link the merchant with their data information in a data storage area. Also the examiner would like to point out that the reference to the specific data would be categorized as non-functional descriptive material as the various data associated with the merchant does not affect the financial transaction apparatus.

61. Regarding claim 24, Willard teaches wherein memory-key comprises a 128 bit data field (¶ 43, 51). Willard discloses merchant identifiers. Official Notice (now admitted prior art) that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores

Art Unit: 3694

data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

62. Claims 37 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view of Narin (US 6966034 B2) in view of Official Notice (now admitted prior art).

63. Regarding claim 37, Willard teaches wherein the memory storage-able data (¶ 39). Official Notice (now admitted prior art) is taken that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources. Willard does not specifically teach where the memory includes data selected from the group of data consisting of merchant name, country, state, location, zip code, merchant category and time zone. However, in paragraph 37 the applicant states:

The authorization request 200 may also contain cache-able data 206. Typical prior art financial transaction protocols are capable of carrying a fairly rich set of merchant data, including for example, merchant name (25 bytes), country (3 bytes), state (2 bytes), location (13 bytes), city code/zip code (3 bytes), merchant category (4 bytes), acquirer bin (6 bytes), time zone differential (3 bytes),

Art Unit: 3694

merchant category code (4 bytes), extra field separators for ease of viewing (4 bytes) and others.

Thus the applicant admits this is prior art and not unique to their invention.

64. Regarding claim 56, Willard teaches loading money by transferring data in real-time through existing technology over a network. Willard does not specifically teach wherein the transaction invariant data is selected from the data consisting of merchant name, country, state, location, zip code, merchant category and time zone. However, in paragraph 37 the applicant states:

The authorization request 200 may also contain cache-able data 206. Typical prior art financial transaction protocols are capable of carrying a fairly rich set of merchant data, including for example, merchant name (25 bytes), country (3 bytes), state (2 bytes), location (13 bytes), city code/zip code (3 bytes), merchant category (4 bytes), acquirer bin (6 bytes), time zone differential (3 bytes), merchant category code (4 bytes), extra field separators for ease of viewing (4 bytes) and others.

Thus the applicant admits this is prior art and not unique to their invention.

65. Claims 12-14, 26, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view Narin (US 6966034 B2), and in further view of Keresman et al. (US 7051002 B2) in further view of Epstein (US 20030004828 A1).

Art Unit: 3694

66. Regarding claim 12, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a HTTPS standard. However, Keresman teaches wherein financial transaction authorization request is in accordance with an HTTPS standard (col. 6, line 57 – col. 7, line 7, col. 7, line 40 – col. 8, line 37). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of HTTPS. HTTPS is a variant of HTTP, which is used for handling secure transactions. In any type of computer related financial transaction security is very important. Using HTTPS would keep important data secure.

67. Regarding claim 13, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a XML standard. However, Keresman teaches wherein a financial transaction authorization request is in accordance with an XML standard (col. 6, line 57 – col. 7, line 7, col. 8, line 8 – col. 10, line 6). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to

Art Unit: 3694

modify Willard to include the details of XML. XML is a general-purpose markup language. It was designed to be human and machine readable, it supports Unicode, it contains strict syntax and parsing requirements which make necessary parsing algorithms simple, XML is heavily used as a format for document storage and processing, and it is based on international standards.

68. Regarding claim 14, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a secure socket layer. However, Keresman teaches wherein a financial transaction authorization request is in accordance with a secure socket layer (col. 6, line 57 – col. 7, line 7). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a secure socket layer. Secure socket layer protocol is a standard for transmitting confidential data such as credit card numbers over the Internet. Most true business sites support this feature, which allows more security in data, transmitted over the WWW. This is the standard minimum safe security level for true business on the Internet.

Art Unit: 3694

69. Regarding claim 26, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a secure socket layer. However, Keresman teaches wherein socket comprises an SSL connection (col. 6, line 57 – col. 7, line 7). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a secure socket layer. Secure socket layer protocol is a standard for transmitting confidential data such as credit card numbers over the Internet. Most true business sites support this feature, which allows more security in data, transmitted over the WWW. This is the standard minimum safe security level for true business on the Internet.

70. Regarding claim 28, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a HTTPS standard. However, Keresman wherein the first financial transaction authorization requests are in accordance with an HTTPS standard teaches wherein financial transaction authorization request is in accordance with an HTTPS standard (col. 6, line 57 – col. 7, line 7, col. 7, line 40 – col. 8, line 37). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a

Art Unit: 3694

communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of HTTPS. HTTPS is a variant of HTTP, which is used for handling secure transactions. In any type of computer related financial transaction security is very important. Using HTTPS would keep important data secure.

71. Regarding claim 29, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a XML standard. However, Keresman teaches wherein a financial transaction authorization request is in accordance with an XML standard (col. 6, line 57 – col. 7, line 7, col. 8, line 8 – col. 10, line 6). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of XML. XML is a general-purpose markup language. It was designed to be human and machine readable, it supports Unicode, it contains strict syntax and parsing requirements which make necessary parsing algorithms simple, XML is heavily used as a format for document storage and processing, and it is based on international standards.

Art Unit: 3694

72. Regarding claim 30, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a secure socket layer. However, Keresman teaches wherein a financial transaction authorization request is in accordance with a secure socket layer (col. 6, line 57 – col. 7, line 7).

Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a secure socket layer. Secure socket layer protocol is a standard for transmitting confidential data such as credit card numbers over the Internet. Most true business sites support this feature, which allows more security in data, transmitted over the WWW. This is the standard minimum safe security level for true business on the Internet.

73. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view of Narin (US 6966034 B2) in view of Official Notice (now admitted prior art) in further view of Steele et al. (US 7016875 B1).

74. Regarding claim 33, Willard teaches a payment processing gateway server for processing financial transactions (§ 37). Willard teaches a network interface configured to couple to a public network and receive first financial authorization requests, financial



Art Unit: 3694

transaction the first authorization requests received from merchants and which include transaction specific data, memory-able data and a memory key (§ 37). Willard teaches a gateway processor configured to process first financial transaction authorization requests received through the network interface (§ 37, 43). Willard teaches wherein the memory comprises data indicative of a merchant and data indicative of a store (§ 37, 43-44, 58-59). Willard teaches a gateway processor configured to retrieve the data from the gateway memory based upon the memory (§ 37, 43-44, 58-59). Willard teaches a financial network interface configured to couple to at least one financial network and transmit second financial transaction authorization requests to a financial institution coupled to the at least one financial network based upon first financial transaction authorization requests, the financial network interface further configured to receive first financial transaction authorization results from the financial institution (§ 37, 43, 49). Willard teaches and the network interface further configured to send second financial transaction authorization results to merchants in response to the first financial transaction authorization results (§ 37, 43, 49-50). Willard teaches a memory configured to memory the memory-able data from the first financial authorization request and index the memory in accordance with the memory key (§ 49). Official Notice (now admitted prior art) is taken that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be

Art Unit: 3694

a waste of system resources. Willard does not specifically teach a supplemental header. However, Narin teaches a supplemental header (col. 4, line 4 – col. 6, line 60). Willard teaches loading money by transferring data in real-time through existing technology over a network. Narin teaches servicing requests for data transmitted across such a network, such as requests for web pages from a server computing device, such as an Internet server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include a supplemental header. A supplemental header at the time of the invention was a well known part of a message format. A supplemental header can be used to store any kind of information and the information that controls the process would operate the same whether in the supplemental header or in the message body. The information is not changed or modified based on being in the supplemental header. A supplemental header is a convenient place to store the information to control a process, as it is a place that is easier to access for a wider variety of software packages. Willard teaches a network interface but does not specifically teach a public network interface. However, Epstein teaches a public network interface (¶ 12-25). Willard teaches loading money by transferring data in real-time through existing technology over a network. Epstein teaches network communications and database maintenance including a system to facilitate Internet commerce. Both Willard and Epstein use network communications for the facilitation of Internet commerce. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a public network interface. The current invention uses a public network as a mode for request of a transaction and then

Art Unit: 3694

a financial network is used to process the request. Willard uses an in person mode for the request of a transaction and then uses a financial network to process the request. It would have been obvious to one of ordinary skill in the art at the time of the invention to make use of a public network to automate a previously manual activity. The use of technology is efficient and saves time and money.

75. Claims 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view Narin (US 6966034 B2) in view of Official Notice (now admitted prior art) and in further view of Keresman et al. (US 7051002 B2).

76. Regarding claim 49, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a HTTPS standard. However, Keresman wherein the first financial transaction authorization requests are in accordance with an HTTPS standard teaches wherein financial transaction authorization request is in accordance with an HTTPS standard (col. 6, line 57 – col. 7, line 7, col. 7, line 40 – col. 8, line 37). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of HTTPS. HTTPS is a variant of HTTP, which is used for handling secure transactions.

Art Unit: 3694

In any type of computer related financial transaction security is very important. Using HTTPS would keep important data secure.

77. Regarding claim 50, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a XML standard. However, Keresman teaches wherein a financial transaction authorization request is in accordance with an XML standard (col. 6, line 57 – col. 7, line 7, col. 8, line 8 – col. 10, line 6). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of XML. XML is a general-purpose markup language. It was designed to be human and machine readable, it supports Unicode, it contains strict syntax and parsing requirements which make necessary parsing algorithms simple, XML is heavily used as a format for document storage and processing, and it is based on international standards.

78. Regarding claim 51, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a secure socket layer. However, Keresman teaches wherein a financial transaction authorization request is in accordance with a secure socket layer (col. 6, line 57 – col. 7, line 7).

Art Unit: 3694

Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a secure socket layer. Secure socket layer protocol is a standard for transmitting confidential data such as credit card numbers over the Internet. Most true business sites support this feature, which allows more security in data, transmitted over the WWW. This is the standard minimum safe security level for true business on the Internet.

79. Claims 16, 32, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1), in view Narin (US 6966034 B2), in further view of Jacobs et al. (US 6334114 B1) in further view of Epstein (US 20030004828 A1).

80. Regarding claim 16, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a stateless logic. However, Jacobs teaches wherein the gateway processor processes financial transaction authorization implementation synchronizes requests using a stateless logic and the gateway processor further socket sessions with financial institutions through the financial network interface (col. 18, line 45 – col. 32, line 14). Willard discloses

Art Unit: 3694

transaction processing and authorization between a customer and a merchant using computer networks. Jacob discloses processing transactions in networked computer systems. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a stateless logic. Stateless treats each request as an independent transaction, unrelated to any previous request. This simplifies the server design because it does not need to allocate storage to deal with conversations in progress or worry about freeing it if a client dies in mid-transaction.

81. Regarding claim 32, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a stateless logic. However, Jacobs teaches wherein the gateway processor processes financial transaction authorization requests using a stateless logic implementation and the gateway processor further synchronizes socket sessions with financial institutions through the financial network interface (col. 18, line 45 – col. 32, line 14). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Jacob discloses processing transactions in networked computer systems. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a stateless logic. Stateless treats each request as an independent transaction, unrelated to any previous request. This simplifies the server design because it does not need to allocate storage to deal with conversations in progress or worry about freeing it if a client dies in mid-transaction.

82. Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1), in view Narin (US 6966034 B2), in further view of Jacobs et al. (US 6334114 B1) in further view of Epstein (US 20030004828 A1) in further view of Nicolaisen (1997).

83. Regarding claim 62, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a stateless logic. However, Jacobs teaches wherein operation of the gateway processor on the financial transaction authorization requests is stateless (col. 18, line 45 – col. 32, line 14). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Jacob discloses processing transactions in networked computer systems. Willard does not teach a gateway processor maintaining a thread. However, Nicolaisen teaches a known network processor system which maintains a tread and is stateless (pg. 1-8). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a stateless logic. Stateless treats each request as an independent transaction, unrelated to any previous request. This simplifies the server design because it does not need to allocate storage to deal with conversations in progress or worry about freeing it if a client dies in mid-transaction. Threading allows the system to point where the information went to speed up the execution of a process.

Art Unit: 3694

84. Claims 40 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1), in view Narin (US 6966034 B2), in view of Official Notice (now admitted prior art), in further view of Jacobs et al. (US 6334114 B1).

85. Regarding claim 40, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a runtime environment. However, Jacobs teaches wherein the gateway processor operates in accordance with a common language run time environment (col. 7, line 63 – col. 10, line 3). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Jacob discloses processing transactions in networked computer systems. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a runtime environment. A runtime environment is important because it is a collection of subroutines and environment variables that provide commonly used functions and data for a program while it is running. A runtime environment is used to abstract the hardware details out of the code implementation, so that the code can be written once and run on any kind of CPU or operating system, as long as that machine has a runtime environment.

86. Regarding claim 52, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a stateless logic. However, Jacobs teaches wherein the gateway processor processes financial



Art Unit: 3694

transaction authorization requests using a stateless logic implementation and the gateway processor further synchronizes socket sessions with financial institutions through the financial network interface (col. 18, line 45 – col. 32, line 14). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Jacob discloses processing transactions in networked computer systems. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a stateless logic. Stateless treats each request as an independent transaction, unrelated to any previous request. This simplifies the server design because it does not need to allocate storage to deal with conversations in progress or worry about freeing it if a client dies in mid-transaction.

87. Claims 39, 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1), in view Narin (US 6966034 B2), in view of Official Notice (now admitted prior art), in further view of Courts et al. (US 6480894).

88. Regarding claim 39, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach maintaining a state. However, Courts teaches wherein the web service maintains state for first financial transaction authorization requests (col. 1, line 50 – col. 10, line 32). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Courts discloses a user based system with multiple web

Art Unit: 3694

transactions. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of maintaining a state. Without a way to manage state, between web transactions the system will have "forgotten" information about the user and the context of the session. This can be further complicated by the fact that in many large web systems the user does not interact with the same web server from transaction to transaction.

89. Regarding claim 42, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard discloses databases (§§ 37-50). Willard does not specifically teach maintaining a state. However, Courts teaches including database configured to maintain the state (col. 1, line 50 – col. 10, line 32). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Courts discloses a user based system with multiple web transactions. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of maintaining a state. Without a way to manage state, between web transactions the system will have "forgotten" information about the user and the context of the session. This can be further complicated by the fact that in many large web systems the user does not interact with the same web server from transaction to transaction. A database would allow the collection managed and stored in one place and all accessible via the same server.

Art Unit: 3694

90. Regarding claim 43, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach web clusters. However, Courts teaches a plurality of gateway processors configured to form a web cluster (col. 1, line 50 – col. 10, line 32). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Courts discloses a user based system with multiple web transactions. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a web cluster. With multiple servers providing the same service there is resilience to failure and a load balancing between the servers.

91. Regarding claim 44, Willard teaches a director configured to direct first financial transaction authorization requests from a specific merchant to a specific gateway processor (¶¶ 37, 65, 68).

92. Regarding claim 45, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach maintaining a state. However, Courts teaches a state server accessible by the web cluster configured to maintain state-related data (col. 1, line 50 – col. 10, line 32). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Courts discloses a user based system with multiple web transactions. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of maintaining a state. Without a

Art Unit: 3694

way to manage state, between web transactions the system will have "forgotten" information about the user and the context of the session. This can be further complicated by the fact that in many large web systems the user does not interact with the same web server from transaction to transaction. A database would allow the collection managed and stored in one place and all accessible via the same server.

93. Claims 59 and 60 rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1), in view Narin (US 6966034 B2), in further view of Stewart et al (US 20020120846 A1) in further view of Epstein (US 20030004828 A1).

94. Regarding claim 59, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach duplicate transactions. However, Stewart teaches wherein the gateway processor is configured to recognize a duplicate financial transaction authorization request from the merchant within a time limit (§¶ 65-79). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Stewart discloses an electronic payment and authentication system that includes features to verify the authenticity of a payer, validate debit data, and facilitate debit payment transactions. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of recognizing duplicate financial transactions. Duplicate financial transactions charge the customer multiple times for an item purchased. Depending on the amount charged the effects of charging multiple times

Art Unit: 3694

could cause problems to the customer. Having a system to recognize this saves time and helps maintain good customer relations.

95. Regarding claim 60, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach duplicate transactions. However, Stewart teaches wherein the gateway processor transmits a message to the merchant in response to the duplicate message (§§ 65-79). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Stewart discloses an electronic payment and authentication system that includes features to verify the authenticity of a payer, validate debit data, and facilitate debit payment transactions. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of recognizing duplicate financial transactions and sending a message. Duplicate financial transactions charge the customer multiple times for an item purchased. Depending on the amount charged the effects of charging multiple times could cause problems to the customer. Having a system to recognize this saves time and helps maintain good customer relations. When the message is sent it will inform the employee of the error and allows for the accurate settlement of the till at the end of the day.

96. Examiner's Note: The Examiner has cited particular columns and line numbers in the references as applied to the claims for the convenience of the applicant.

Although the specified citations are representative of the teachings in the art and are

Art Unit: 3694

applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

### ***Conclusion***

97. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMIE H. SWARTZ whose telephone number is

Art Unit: 3694

(571)272-7363. The examiner can normally be reached on 8:00am-4:30pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on (571) 272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. H. S./  
Examiner, Art Unit 3694

/Mary Cheung/  
Primary Examiner, Art Unit 3694